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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,262

12/19/2005

Andre Gabioud

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EXAMINER

SONG, HOON K

ART UNIT

PAPER NUMBER

2882

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,262	<b>Applicant(s)</b> GABIOUD, ANDRE	
	<b>Examiner</b> Hoon Song	<b>Art Unit</b> 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-12 and 17 is/are rejected.
- 7) ☒ Claim(s) 13-16 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37.CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/19/05;12/22/06</u> | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Drawings***

Figures 1-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 12 and 13 are objected to because of the following informalities:

In claim 12 at line 3, "its" is unclear; at line 4, "it" is unclear.

In claim 13 at line 3, what is "generatrices"?

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-11 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Wittry (US 5892809).

Regarding claim 10, Wittry teaches an X-ray generator tube comprising:  
an electron gun 28 emitting an electron beam,  
an anode unit comprising a target carrier assembly 31 having a flat surface known as the target onto which the electron beam is focused in a focusing spot, the target carrier assembly having an axis of revolution substantially perpendicular to the mean direction of the electron beam and passing through the plane of the target (figure 1).

Regarding claim 11, Wittry teaches the target carrier assembly is of cylindrical shape overall with a circular cross section, the target being situated in a plane passing through the axis of revolution of the cylinder and the anode unit comprising a housing, also of cylindrical shape overall and in which said target carrier assembly is housed such that the axis of revolution of the target carrier assembly passes through the focusing spot (figure 1).

Regarding claim 17, Wittry teaches a method for producing an anode unit assembly for an X-ray generator tube, comprising the following steps:

producing a target carrier assembly 31 having a fiat surface known as a target that has an axis of revolution passing through the plane of the target;

producing an anode unit comprising a housing;

inserting the target carrier assembly in the housing of the anode unit such that the axis of revolution is substantially perpendicular to the mean direction of the electron beam emitted by the tube;

setting the angle of inclination  $\alpha$  of the target to said mean direction by rotating the axis;

fixing the target carrier assembly into the anode unit (figure 3).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Bjorkholm (US 7162005B2).

Regarding claim 10, Bjorkholm teaches an X-ray generator tube comprising:  
an electron gun 102 emitting an electron beam,  
an anode unit comprising a target carrier assembly 110 having a flat surface known as the target onto which the electron beam is focused in a focusing spot, the target carrier assembly having an axis of revolution substantially perpendicular to the mean direction of the electron beam and passing through the plane of the target (figure 3).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wittry in view of Gabbay (US 5535255).

Regarding claim 12, Wittry fails to teach the target carrier assembly comprises at least one internal cooling-fluid-circulation duct passing through the target carrier assembly in a direction substantially parallel to its axis of revolution and passing under the target in order to cool it.

Gabbay teaches an internal cooling-fluid-circulation duct cooling target (figure 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the target of Wittry with the cooling circuit as taught by Gabbay, since the cooling circuit would prolong the target life.

#### ***Allowable Subject Matter***

Claims 13-16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 13, the prior art fails to teach the duct comprises a central part known as an exchanger placed under the target and formed of several secondary ducts of cylindrical shape and with generatrices parallel to the axis of revolution of the target carrier assembly as claimed in dependent claim 13.

Regarding claim 18, the prior art fails to teach a target carrier assembly as claimed in claim 4, wherein the step of producing the target carrier assembly comprises the following sub steps:

producing a first mechanical assembly of cylindrical shape overall comprising a main duct passing through said first assembly in a direction substantially parallel to its axis of revolution and in its central part a recess comprising a flat surface, the main duct opening into this recess;

producing a second mechanical assembly comprising a flat top surface and a bottom surface comprising identical grooves;

assembling the second assembly in the recess of the first assembly in such a way that the grooves are placed facing the flat surface of the recess, the top surface of the second assembly constituting the target, the collection of grooves of the second assembly and of the flat surface of the recess constituting so many secondary ducts that form the exchanger as claimed in dependent claim 18.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoon Song whose telephone number is (571) 272-2494. The examiner can normally be reached on 9:30 AM - 7 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272 - 2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



HKS